

REMARKS

Claims 1 and 3-17 are pending. Claim 5 is amended to place it in independent allowable form. No range of equivalents is intended to be surrendered by these amendments. No new matter is introduced. Reconsideration and issuance of a Notice of Allowance are respectfully requested.

Applicants thank the Examiner for indicating that claims 6-17 are allowed and claim 5 contains allowable subject matter.

Pending claims 1 and 3 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Panwar and Hull. Applicants respectfully traverse this rejection.

“To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” MPEP 2143.03 (emphasis added). Panwar and Hull do not teach or suggest all of the claim limitations of claim 1.

For example, Panwar and Hull do not teach or suggest:

selecting either the microinstruction from the fetch engine or the bundle from the emulation engine, by using the multiplexer, and

dispatching the selected microinstruction/bundle to the execution engine,

as recited in claim 1. The Office Action, in para. 17 on page 9, cites to Panwar, col. 7, ln. 61-col. 8, ln. 2, col. 8, lines 15-17, and col. 10, lines 34-37 as teaching these features. The Examiner also argues, in paragraph 11 on pages 6-7 that “Panwar has taught ‘dispatching a bundle in parallel to an execution engine via a multiplexer (Figure 3, element 306, column 7, line 60-column 8, line 18), and ... selecting either the microinstruction from the fetch engine or the bundle from the emulation engine, by using the multiplexer (Figure 3, element 306, column 7, line 60-column 8, line 18)’.” In essence, the Examiner is arguing that element 306 is selecting either the microinstruction from the fetch engine or the bundle from the emulation engine, as recited in claim 1. However, Panwar does not contain any teaching to support this argument. The only mention Panwar makes regarding element 306 is that “non-complex instructions are selected from the multiplexer [multiplexer 304] and passed along bypass data path 310 to the output multiplexer 306.” Although Figure 3 shows complex instructions passing to helper logic 302, where they are expanded into microinstructions and placed into buffer before proceeding to output multiplexer 306, there is no suggestion or teaching in Panwar that output multiplexer 306 selects between the non-complex instructions and the microinstructions from the expanded complex instructions. Rather, Panwar is utterly silent as

to the operation of output multiplexer 306. This silence does not support Examiner's argument.

Indeed, Panwar's teachings regarding Figure 6, as detailed in Applicants' prior response, directly contradict the Examiner's argument. Figure 6 is a "flow diagram of one embodiment of the present invention for parsing a main bundle into one or more complex or non-complex sub-bundles. As is clearly illustrated in Figure 6 of Panwar, and described in the corresponding text, Panwar places non-complex instructions in a non-complex sub-bundle until a complex instruction is detected (see step 602). If a complex instruction is detected, Panwar issues the instructions in the non-complex sub-bundle for execution (see step 604). Then, Panwar expands the detected complex instruction into microinstructions (step 606), places those microinstructions in a complex sub-bundle (step 608), and issues microinstructions in the complex sub-bundle for execution (step 610). Therefore, Panwar dispatches non-complex instructions (the non-complex sub-bundle) for execution before it even expands the detected complex instruction into microinstructions. Since Panwar dispatches the non-complex instructions for execution before it expands the detected complex instructions, output multiplexer 306 cannot select between the non-complex instructions and the microinstructions from the expanded complex instructions. Consequently, Panwar never teaches or suggest selecting either a microinstruction from the fetch engine or a bundle from the emulation engine and dispatching the selected microinstruction/bundle.

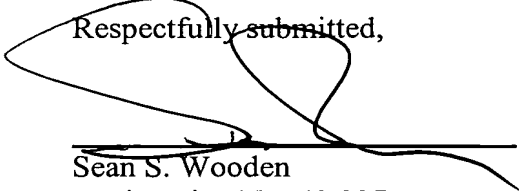
Hull does not overcome these defects in Panwar. Consequently, claim 1 is not rendered obvious for at least these reasons. Claim 3, which depends on claim 1, is allowable for at least these reasons and the independent features it recites.

Claim 4 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Panwar and Hull, further in view of Nemirovsky and Davidson. Nemirovsky and Davidson do not overcome the defects of Panwar and Hull discussed above with regards to claim 1. Claim 4, which depends on claim 1, is allowable for these same reasons and for the independent features it recites.

In view of the above remarks, Applicants respectfully submit that the application is in condition for allowance. Prompt examination and allowance are respectfully requested.

Should the Examiner believe that anything further is desired in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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